

IN THE CLAIMS

1. (currently amended) Low expansion transparent glass-ceramics obtained by heat treating a base glass produced at a melting temperature of 1530° or below, said glass-ceramics containing 0.5 - 2% of CaO on the basis of the amount of total oxides having an average linear thermal expansion coefficient ( $\alpha$ ) within a range from  $+6 \times 10^{-7}/^{\circ}\text{C}$  to  $+35 \times 10^{-7}/^{\circ}\text{C}$  within a temperature range from 100° to 300° and having 80% transmittance wavelength ( $T_{80}$ ) of 700nm or below.
2. (original) Low expansion transparent glass-ceramics as defined in claim 1 wherein internal transmittance for a plate having thickness of 10mm is 75% or over at light wavelength of 1550nm.
3. (original) Low expansion transparent glass-ceramics as defined in claim 1 having a heat resisting temperature of 800°C or over.
4. (original) Low expansion transparent glass-ceramics as defined in claim 1 having Young's modulus of 90 GPa or over.
5. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing  $\beta$ -quartz or  $\beta$ -quartz solid solution as a predominant crystal phase.
6. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing 1.5% - 3.5%  $\text{Li}_2\text{O}$  in mass % on the basis of amount of total oxides.

7. (original) Low expansion transparent glass-ceramics as defined in claim 1 wherein amount of eluting lithium ion is less than  $0.0050\mu\text{g}/\text{cm}^2$ .

8. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing 3% - 6%  $\text{TiO}_2$  in mass % on the basis of amount of total oxides.

9. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing three or more ingredients among RO ingredients (where R is Mg, Ca, Sr, Ba or Zn) in an amount of 0.5% or over in mass % on the basis of amount of total oxides for respective ingredients.

10. (original) Low expansion transparent glass-ceramics as defined in claim 9 containing  $\text{ZnO}$  in a larger amount than other RO ingredients in mass % on the basis of amount of total oxides.

11. (original) Low expansion transparent glass-ceramics as defined in claim 9 containing a total amount of the RO ingredients of 3.5% or over in mass % on the basis of amount of total oxides.

12. (original) Low expansion transparent glass-ceramics as defined in claim 1 containing a total amount of  $\text{R}'\text{O}$  ingredients (where  $\text{R}'$  is Mg, Ca, Ba or Sr) of 3% - 13% in mass % on the basis of amount of total oxides.

13. (original) Low expansion transparent glass-ceramics as defined in claim 1 comprising in mass % on the basis of amount of total oxides:

$\text{SiO}_2$	50 - 65%
$\text{Al}_2\text{O}_3$	20 - 30%
$\text{MgO}$	0.5 - 2%
$\text{CaO}$	0.5 - 2%
$\text{SrO}$	0 - 10%

BaO	1 - 5%
ZnO	0.5 - 15%
Li <sub>2</sub> O	1.5 - 3.5%
TiO <sub>2</sub>	3 - 6%
ZrO <sub>2</sub>	1 - 5%
Nb <sub>2</sub> O <sub>5</sub>	0 - 5%
La <sub>2</sub> O <sub>3</sub>	0 - 5%
Y <sub>2</sub> O <sub>3</sub>	0 - 5%
As <sub>2</sub> O <sub>3</sub> and/or Sb <sub>2</sub> O <sub>3</sub>	0 - 2%.

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43. (new) Low expansion transparent glass-ceramics obtained by heat treating a base glass produced by melting oxides at a melting temperature of 1530° or below, said glass-ceramics having an average linear thermal expansion coefficient ( $\alpha$ ) within a

range from  $+6 \times 10^{-7}/^{\circ}\text{C}$  to  $+35 \times 10^{-7}/^{\circ}\text{C}$  within a temperature range from  $100^{\circ}$  to  $300^{\circ}$  and having 80% transmittance wavelength ( $\text{T}_{80}$ ) of 700nm or below said oxides being selected from the group comprising in mass % on the basis of the amount of total oxides:

$\text{SiO}_2$	50 - 65%
$\text{Al}_2\text{O}_3$	0 - 30%
$\text{MgO}$	0.5 - 2%
$\text{CaO}$	0.5 - 2%
$\text{SrO}$	0 - 10%
$\text{BaO}$	1 - 5%
$\text{ZnO}$	0.5 - 15%
$\text{Li}_2\text{O}$	1.5 - 3.5%
$\text{TiO}_2$	3 - 6%
$\text{ZrO}_2$	1 - 5%
$\text{Nb}_2\text{O}_5$	0 - 5%
$\text{La}_2\text{O}_3$	0 - 5%
$\text{Y}_2\text{O}_3$	0 - 5%
$\text{As}_2\text{O}_3$ and/or $\text{Sb}_2\text{O}_3$	0 - 2%.